

Gestalt Psychology

Learn how all objects can be observed in their simplest form.

Topics

1. What is Gestalt Psychology?
2. Visual Design vs. Verbal Design
3. Laws of Gestalt
4. The Principles of Visual Design

Introduction

Upon completing this lesson, students will have gained knowledge in:

- The basic laws of perceptual organization
- Law of Simplicity
- Observing the whole
- a unique perspective on human perception

1. What is Gestalt Psychology?

Gestalt, loosely translated into English, means “shape” or “form

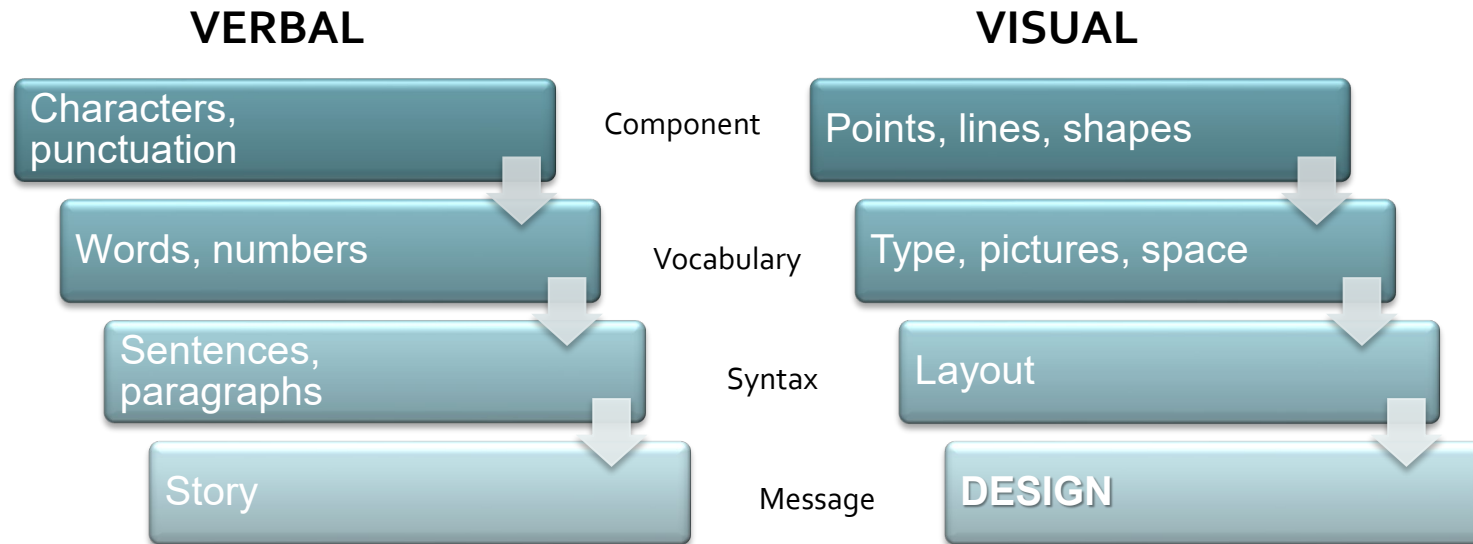
- make sense of so much visual stimuli (Schamber, 1986)
- focussing more on meaningful learning
- important for instructional designers

1. What is Gestalt Psychology?

- The user interface has an impact on the learning experience and the amount of knowledge retained - it has a crucial role in learning
- According to Gagne's nine events of instruction, screen design has the initial role of gaining learner attention
- All interactions in online learning occur through the visual presentation
- It is not just about which multimedia components are used, but also about where these components are placed on the screen

2. Visual Design vs. Verbal Design

Think about how verbal elements are used in education. There are rules for structuring verbal information – verbal elements such as words are used to form sentences. Visual information can be arranged in much the same way.

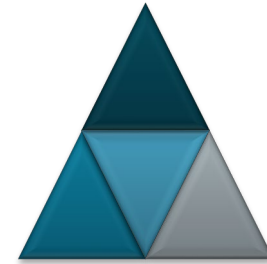


Adapted from Schamber, 1986

2. Visual Design vs. Verbal Design

- Gestalt is “not a combination of elements but something new in relation to these, which exists together in their combination, but it distinguishable from it” (Lyons, 2001)
- As interface designers we need to recognise that learners will view the concept as a whole – even if it is made up of well-designed parts

How do we create? Imagine?



“Creativity begins as a whole....the idea precedes the execution” (Schamber, 1986)

2. Visual Design vs. Verbal Design

- Robins and Holmes (2008) found that a web-page that is aesthetically unappealing and/or poorly designed will produce a negative impression of credibility among its users – regardless of the quality of the information provided.
- Gestalt psychology can provide instructional designers with an understanding of “aesthetic perception and cognition” (Lyons, 2001).
- Aesthetic design theory provides an avenue for visual analysis – using the laws and principles of Gestalt psychology (Haupt & Blignaut, 2006).



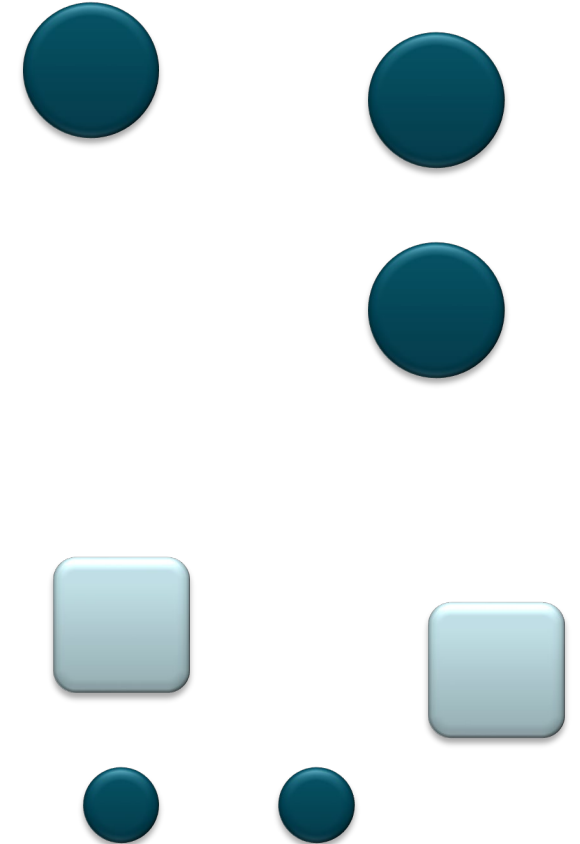
3. Laws of Gestalt

- **Law of Proximity**

The closer objects are to each other, the more likely they are to be perceived as a group (Ehrenstein, 2004)

- **Law of Symmetry**

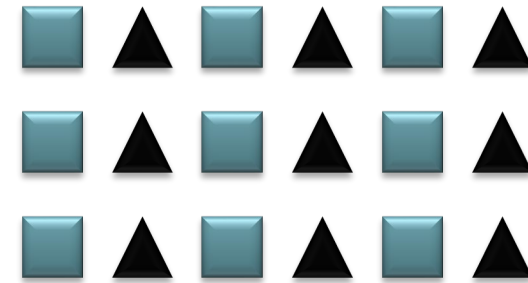
Objects must be balanced or symmetrical to be seen as complete or whole (Chang, 2002).



3. Laws of Gestalt

- **Law of Similarity**

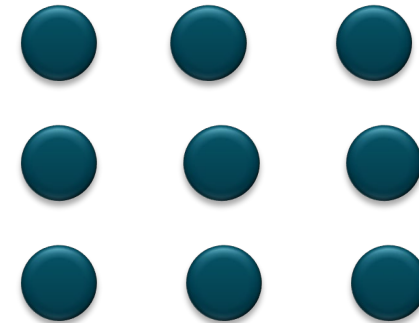
Objects that are similar, with like components or attributes are more likely to be organised together (Schamber, 1986).



Objects are viewed in vertical rows because of their similar attributes.

- **Law of Common Fate**

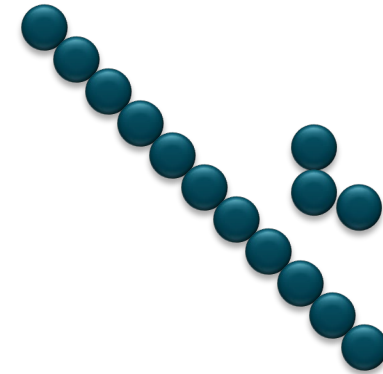
Objects with a common movement, that move in the same direction, at the same pace, at the same time are organised as a group (Ehrenstein, 2004).



3. Laws of Gestalt

- **Law of Continuation**

Objects will be grouped as a whole if they are co-linear, or follow a direction (Chang, 2002; Lyons, 2001).



- **Law of Isomorphism**

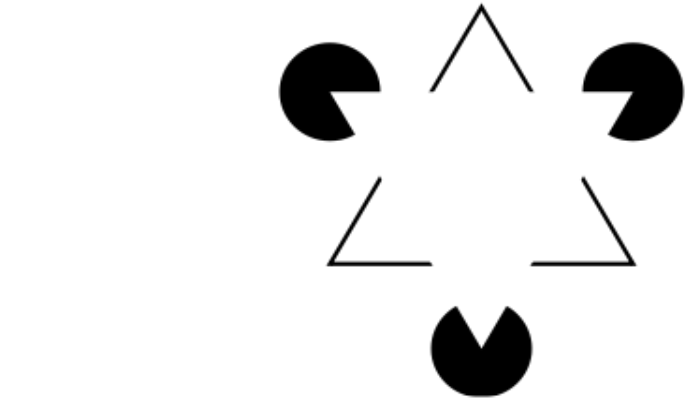
Is similarity that can be behavioural or perceptual, and can be a response based on the viewers previous experiences (Luchins & Luchins, 1999; Chang, 2002). This law is the basis for symbolism (Schamber, 1986).



3. Laws of Gestalt

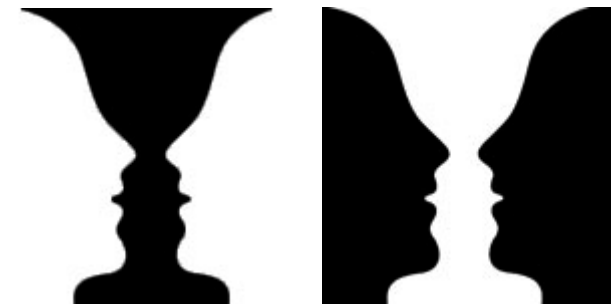
- **Law of Closure**

In perception there is the tendency to complete unfinished or partially obscured objects (Ehrenstein, 2004). Kanizsa's triangle (*right*) is one of the most recognisable examples of this (Wikipedia, 2008).



- **Law of Figure - Ground**

Viewers will perceive an object (figure) and a surface (ground) even in shapes are grouped together (Ehrenstein, 2004). This law also defines use of contrast (Schamber, 1986).



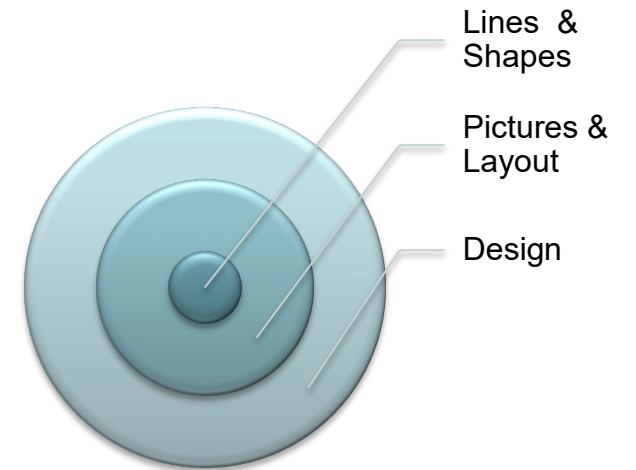
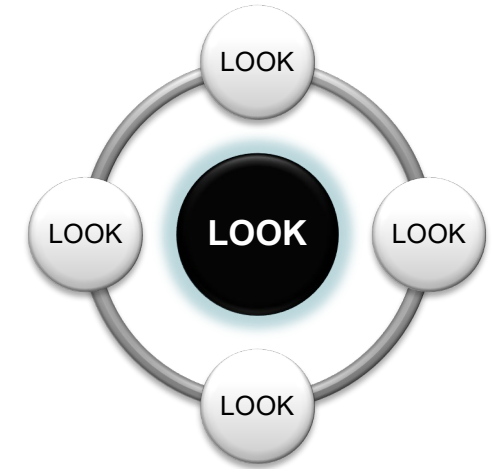
3. Laws of Gestalt

- **Law of Focal Point**

The idea that a point of interest, something emphasised or different will catch and hold the viewers attention (Chang, 2002).

- **Law of Simplicity**

This is the law that states that people will visualise according to the simplest way of grouping items – and the effort to simplify complex items is unconscious (Chang, 2002).



3. Laws of Gestalt

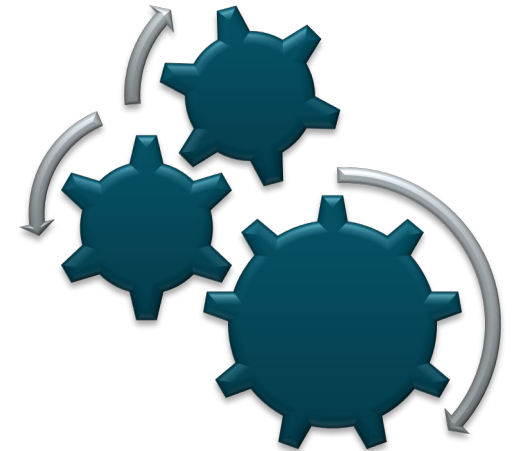
- **Law of Prägnanz**

Prägnanz means, in simple terms, “good form” and refers to organising shapes to simple forms (Chang, 2002). Figures are seen as their simple elements instead of complicated shapes.



- **Law of Unity**

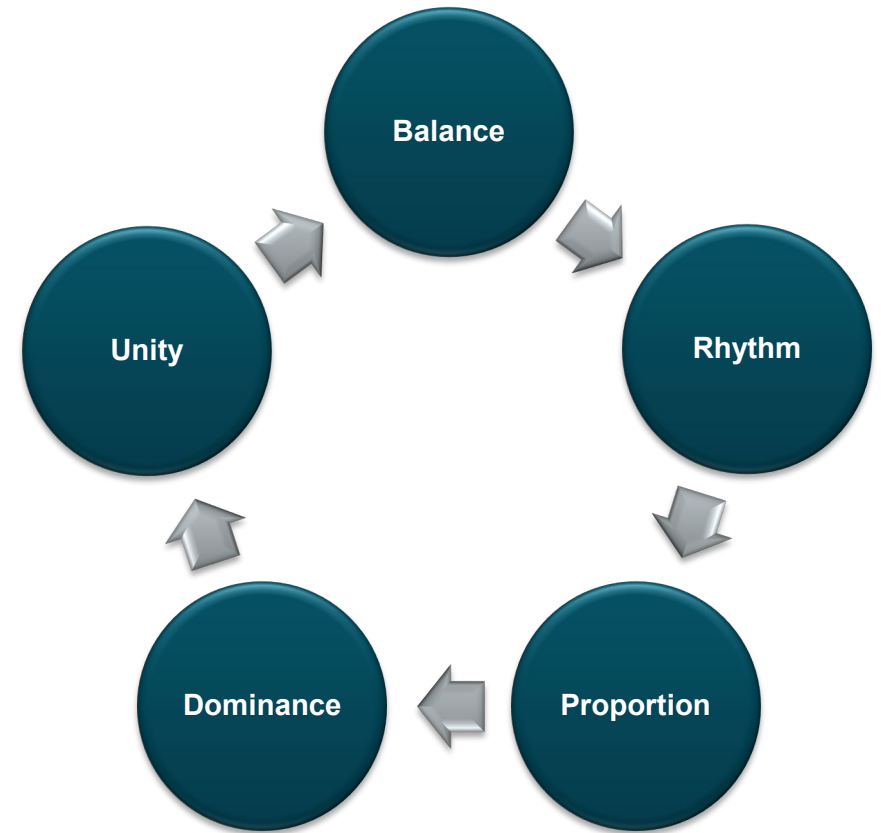
Is the law of arrangement, where elements and structures have a visual connection and look like they belong together, in unity (Chang, 2002). Unity is one of the general principles of visual design.



4. The Principles of Visual Design

Design has impact beyond decoration

The concept of unity, in particular can be linked to the Gestalt theories of visual perception, and in particular the way the brain categorises and groups visual information (McClurg-Genevese, 2005). Unity describes “the relationship between the individual parts and the whole of the composition” (McClurg-Genevese, 2005). This is perhaps one of the most important aspects of design.



4. The Principles of Visual Design

- Each of the laws in this presentation provide a technique that can be used in instructional and interface design to maximise visual aesthetics, and therefore maximise learning potential for users.
- Don't forget that just as these Gestalt laws are true when defining human perception, the opposite of each is also true. For example, in the diagram below, the figure on the right is DIS-similar to the others and therefore stands out.



4. The Principles of Visual Design

As shown previously, in verbal expression the rules relate to grammar and structure – in visual expression the rules can be explained with Gestalt principles, or “laws” (Schamber, 1986).

Traditionally, these laws of Gestalt show how visualisations can be effective when presenting static visual elements (Chang, 2002). Design has changed, technology has improved. We now have a multitude of multimedia components and new communication tools at our disposal – can we still apply Gestalt laws and principles to interface design?

Communicating visually has now been affected by computer screens and reading from a screen has been shown to be more difficult than traditional printed materials (Kirk & Kennedy, 2001), therefore:

Summary

- the whole is greater than the sum of its parts
- Observing the whole helps us find order in chaos
- individual shapes create the illusion of motion
- all objects and scenes can be observed in their simplest forms
- unity among outwardly unrelated parts and pieces of information